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(54) EFFECTUATING MODIFICATIONS WITHIN AN INSTANCE OF A VIRTUAL SPACE PRESENTED VIA MULTIPLE DISPARATE CLIENT COMPUTING PLATFORMS RESPONSIVE TO DETECTION OF A TOKEN ASSOCIATED WITH A SINGLE CLIENT COMPUTING PLATFORM

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(56) References Cited

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

GB 2 365 364 2/2002 WO WO 01/69572 9/2001

(Continued)

OTHER PUBLICATIONS

U.S. Appl. No. 60/151,586, filed Aug. 30, 1999 in the name of Tony Forrest Rodriguez, 4 pages.

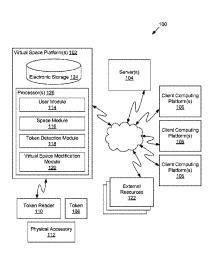
(Continued)

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(57) ABSTRACT

Exemplary implementations may facilitate effectuating modifications within an instance of a virtual space presented via multiple disparate client computing platforms responsive to detection of a token associated with a single client computing platform. In some implementations, tokens may be detected based on signals received from token readers associated with individual ones of the multiple client computing platforms. A given token may be a standalone physical object. The given token may be detectable based on a signal conveying information associated with the given token. The information associated with the given token conveyed by the signal may be devoid of virtual space content.

16 Claims, 2 Drawing Sheets



(51)	Int. Cl.				2008/030005	3 A 1	12/2008	Muller	463/31
(51)			(2014.01)		2009/000237		1/2009	Lee et al	
	A63F 13/40		(2014.01)		2009/002348			Gilson et al	
	A63F 13/30		(2014.01)		2009/0053970		2/2009	Borge	
	G06F 3/0484	!	(2013.01)		2009/013732	3 A1	5/2009	Fiegener et al	463/43
	H04L 29/08		(2006.01)		2009/019765		8/2009	Polchin	
					2009/020344		8/2009	Bradbury et al	
(56)		Referen	ces Cited		2009/029176- 2009/030761		11/2009 12/2009	Kirkman et al Riley	
	77.0	D. (TEE) TE	DOCKE CENTER		2010/002349			Lucas	
	U.S.	PATENT	DOCUMENTS		2010/015194		6/2010	Borge	
	£ 0£2 227 A	12/1009	Citter a	2/20	2011/0045913		2/2011	Walker et al	
	5,853,327 A 5,855,483 A	1/1998	Gilboa		2011/010723			Adoni et al	
	6,354,947 B1		Dobrusskin et al 46		2011/023178			Betzler et al	
	6,361,396 B1		Snyder et al 446		2011/025095		10/2011	Braund	
	6,364,735 B1	4/2002	Bristow et al 446	/397	2011/026332: 2011/026333:		10/2011	Van Luchene Mizrachi	
	6,650,870 B2		White et al 45		2011/028891		11/2011	Guthrie	
	6,735,324 B1	5/2004	McKinley et al 382		2011/0294574		12/2011	Yamada et al	
	6,761,637 B2 6,773,325 B1		Weston et al 46 Mawle et al 446		2012/001574	8 A1	1/2012	Osada	463/43
	6,835,131 B1		White et al 4		2012/006496		3/2012	Youm et al	
	6,877,096 B1	4/2005	Chung et al 713		2012/0142429		6/2012	Muller	
	6,967,566 B2	11/2005	Weston et al 340/33		2012/017213 2012/023836		7/2012 9/2012	Boswell et al Janis et al	
	7,001,276 B2	2/2006	Shinoda 46		2012/029570		11/2012		
	7,066,781 B2		Weston 446		2012/029570		11/2012	Reiche et al	
	7,081,033 B1	7/2006 7/2007	Mawle et al 446		2012/029570		11/2012	Reiche et al	463/31
	7,244,183 B1 7,297,063 B2		England 46 Fujisawa et al 46		2012/030235			Annunziata	
	D559,327 S		Luk et al D21		2012/031168			Lemus et al	
	7,338,377 B2	3/2008	Shinoda 46		2012/031598: 2012/0331529			Miller, IV et al Ibel et al	
	7,426,642 B2	9/2008	Aupperle et al 713		2012/033132		3/2013	Archer et al	
	7,488,231 B2	2/2009	Weston 446		2013/029013		10/2013	Olomskiy	
	7,502,759 B2		Hannigan et al		2013/029014		10/2013	Chandra et al	
	7,534,157 B2 * 7,636,783 B2	5/2009	Ganz		2013/029604		11/2013	Weinshanker et al.	
	7,677,948 B2		Ganz 446		2014/0066209		3/2014	Annambhotla	
	D620,256 S		Fujimura et al D3		2014/017653		6/2014	Vignocchi et al	
	D620,257 S	7/2010	Fujimura et al D3	/294	2014/017941 2014/017944		6/2014 6/2014	Vignocchi et al Vignocchi et al	
	7,789,726 B2		Ganz 446		2014/017944		6/2014	Vignocchi et al	
	D626,978 S		Huh D15		2014/018106		6/2014	Vignocchi et al	
	7,843,334 B2 7,843,471 B2		Kumagai et al 340/53 Doan et al 345		2014/018150	7 A1	6/2014	Vignocchi et al	713/159
	7,846,004 B2		Ganz 446		2014/018170		6/2014	Vignocchi	
	7,883,416 B2		Dobrusskin et al 46		2014/0181820		6/2014	Vignocchi et al	
	7,883,420 B2	2/2011	Bradbury et al 46	3/43	2014/018199- 2014/022353-		6/2014 8/2014	Vignocchi et al Vignocchi et al	
	7,886,156 B2		Franchi 713		2014/030462			Nelson et al	
	7,905,779 B2 7,933,968 B1*	3/2011 4/2011	Dyke et al						
	8,002,605 B2		Ganz 446		F	OREIG	N PATE	NT DOCUMENT	TS .
	D645,910 S		Foster et al D21						
	8,025,573 B2		Stenton et al 46	3/43		O 01/69	9830	9/2001	
	8,033,901 B2		Wood 4	05/1		03/043		5/2003	
	D657,426 S		Gomez D21	/330	WO WO 2	007/101	1785	9/2007	
	D666,249 S	8/2012	Minchella Jennings	/222		OT	HER PUI	BLICATIONS	
	8,323,068 B2	12/2012	et al D21 Ganetakos et al 446						
	8,401,913 B2	3/2013			U.S. Appl. No.	60/288,	272, filed?	May 2, 2001 in the 1	name of Ravi K.
	D680,594 S		Mercier et al D21		Sharma et al., 3	1 pages	i.		
	D687,106 S		Menting D21	/398				Jun. 7, 2001 in the i	name of Brett T.
	8,726,172 B1		Vignocchi et al 715	/757	Hannigan et al.				
	D710,945 S		Biheller et al D21	/333 .				ed Nov. 14, 2001	in the name of
	8,864,589 B2 8,904,298 B2		Reiche, III		Stephen C. Bed	k, 120 j	oages.		
	8,909,920 B2		Vignocchi et al 713		U.S. Appl. No.	60/355,	856, filed I	Feb. 10, 2002 in the	name of Brett T.
	8,910,266 B2		Vignocchi et al 7	26/9	Hannigan et al.				
	3/0037075 A1		Hannigan et al 707					P", Mongoose Publ	
	4/0029625 A1	2/2004	Annunziata 4					-5, retrieved fron	
	4/0092311 A1		Weston et al 46 Keam et al 4					71/f/2012/316/e/6/ _J	
	4/0266505 A1 5/0245302 A1		Bathiche et al 4	CO (1			ta_crossi	oads-d4zxv52.pdf,	retrieved Apr.
	5/0009287 A1		Engelfriet 46	2/25	16, 2014, 110 p		ra anlin-	nagangad riin the T-	tornot accessod
	5/0094501 A1	5/2006		2/20				accessed via the In ikipedia.org/wiki/I	
200′	7/0015588 A1		Matsumoto et al 46	3/43	pages.	OIL. N	nαp.//cπ.w	ikipedia.01g/WiKl/1	714010_111~, 23
	7/0087839 A1	4/2007	Bradbury et al 46	3/43		iki.net o	online acc	essed via the Interne	et, accessed Jun
	7/0197297 A1	8/2007	Witchey 46 Doan et al 345	3/42				blowiki.net/Stash>,	
	7/0211047 A1 8/0085773 A1		Wood 46	/11/				, accessed via the In	
	8/0161113 A1*		Hansen et al	DD				ww.diablowiki.net	
	8/0280684 A1		McBride et al 46		pages.		-		

(56) References Cited

OTHER PUBLICATIONS

Weapons, Diablowiki.net, online, accessed via the Internet, accessed Jun. 26, 2014, URL: http://www.diablowiki.net/Weapons, 7 pages.

Fundamentals, Battle.net, online, accessed via the Internet, accessed Jun. 26, 2014, URL: http://us.battle.net/d3/en/game/guide/gameplay/fundamentals, 13 pages.

Inventory, Battlet.net, online, accessed via the Internet, accessed Jun. 26, 2014, URL: http://us.battle.net/d3/en/game/guide/items/inventory, 9 pages.

Toy Story 3: The Video Game, Wikipedia.org, online, accessed via the Internet, accessed Jun. 26, 2014, URL: http://en.wikipedia.org/wiki/Toy Story 3: The Video Game> 10 pages.

wiki/Toy_Story_3:_The_Video_Game>, 10 pages.
Toy Story 3 Toy Box Mode Demo, Youtube.com, online, May 8, 2010, accessed via the Internet, accessed Jun. 26, 2014, URL: http://www.youtube.com/watch?v=Do84qnpfUvQ>, 2 pages.

Crecente, Brian, "Diving Into Toy Story 3's Toy Box", Kotaku.com, online, May 20, 2010, accessed via the Internet, accessed Jun. 26, 2014, URL: http://kotaku.com/5543513/diving-into-toy-story-3s-toy-box, 4 pages.

Whitehead, Dan, "Toy Story 3 Page 2", Eurogamer.net, online, Jul. 14, 2010, accessed via the Internet, accessed Jun. 26, 2014, URL: http://www.eurogamer.net/articles/toy-story-3-review?page=2, 2 pages.

[Guide] Item Drops That Starts Quest [LvL 1-85 Zones]. Eu.battle. net. Online. Dec. 31, 2010. Accessed via the Internet. Accessed Nov. 13, 2014. <URL:http://eu.battle.net/wow/en/forum/topic/1415204550>, 18 pages.

Blood Elf Plans. Eu.battle.net. Online. Accessed via the Internet. Accessed Nov. 13, 2014. <URL:http://eu.battle.net/wow/en/item/24414>, 2 pages.

* cited by examiner

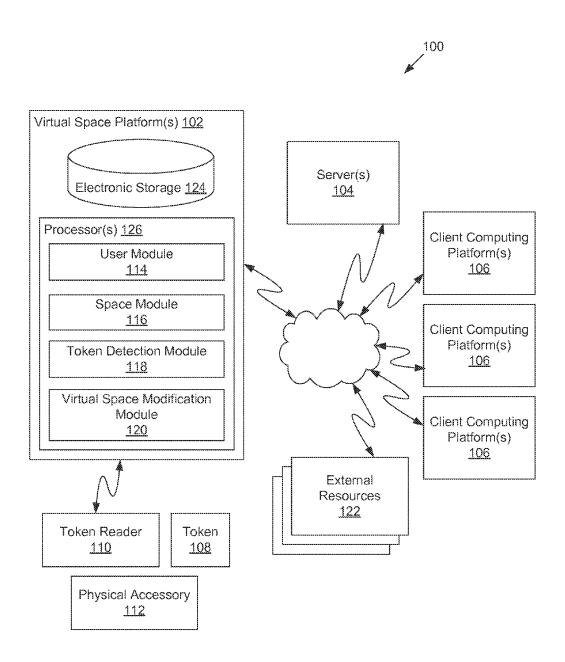


FIG. 1

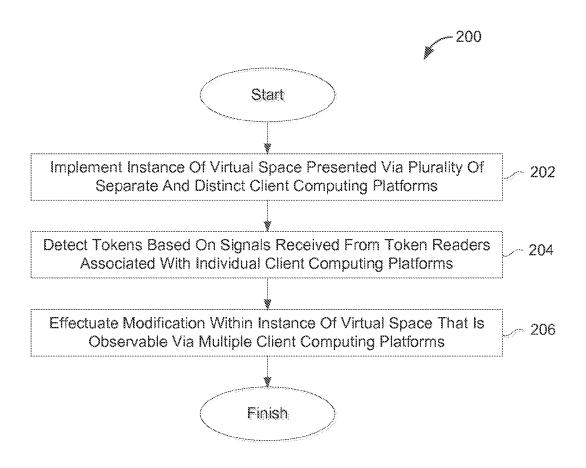


FIG. 2

EFFECTUATING MODIFICATIONS WITHIN AN INSTANCE OF A VIRTUAL SPACE PRESENTED VIA MULTIPLE DISPARATE CLIENT COMPUTING PLATFORMS RESPONSIVE TO DETECTION OF A TOKEN ASSOCIATED WITH A SINGLE CLIENT COMPUTING PLATFORM

CROSS REFERENCE TO RELATED APPLICATIONS

The present application is a continuation of U.S. patent application Ser. No. 13/838,060, filed Mar. 15, 2013, entitled "Effectuating Modifications Within An Instance Of A Virtual Space Presented Via Multiple Disparate Client Computing Platforms Responsive To Detection Of A Token Associated With A Single Client Computing Platform", the disclosure of which is incorporated herein by reference in its entirety.

FIELD OF THE DISCLOSURE

This disclosure relates to effectuating modifications within an instance of a virtual space presented via multiple disparate client computing platforms responsive to detection of a token associated with a single client computing platform.

BACKGROUND

Conventionally, modifications within an instance of a virtual space may be limited to modifications made in response 30 to in-space actions. For example, a user may select from an in-space menu providing available modification options. As another example, modifications may be made in response to actions performed by a character in a virtual space.

SUMMARY

One aspect of the disclosure relates to a system configured to effectuate modifications within an instance of a virtual space presented via multiple disparate client computing plat- 40 forms responsive to detection of a token associated with a single client computing platform, in accordance with one or more implementations. Exemplary implementations may facilitate effectuating modifications within an instance of a virtual space presented via multiple disparate client comput- 45 ing platforms responsive to detection of a token associated with a single client computing platform. In some implementations, a physical accessory may depict a character in the virtual space. By way of non-limiting example, the physical accessory may include a toy figurine resembling the charac- 50 ter. A detectable token (i.e., a physical object) may be removably attached to the physical accessory. According to some implementations, responsive to the physical accessory being detected along with the removably attached token, a modification within the virtual space may be effectuated. In some 55 implementations, detection of the token alone may effectuate such a modification.

The system may include one or more virtual space platforms. A token may be configured to be detected to effectuate modifications within an instance of the virtual space, in accordance with one or more implementations. The token may be configured to be detectable by a token reader. According to some implementations, token reader may be a peripheral device configured to be communicatively coupled with one or more components of the system.

The virtual space platform(s) may be configured to execute one or more computer program modules. The computer pro2

gram modules may include one or more of a user module, a space module, a token detection module, a virtual space modification module, and/or other modules. The user module may be configured to access and/or manage one or more user profiles and/or user information associated with users of the system. The space module may be configured to implement the instance of the virtual space executed by the computer modules to determine views of the virtual space.

The token detection module may be configured to detect tokens based on signals received from token readers associated with individual ones of the client computing platforms. For example, a first token may be associated with a first client computing platform, whereas a second token may be associated with a second client computing platform. Detecting the token may include receiving a signal conveying information associated with the token. Such information may be utilized to identify the token, a character associated with the token, a virtual item associated with the token, and/or other information associated with the token.

The virtual space modification module may be configured to effectuate a first modification within the instance of the virtual space responsive to detection of the first token. The first modification may be observable via multiple ones of the client computing platforms. The observability of the first modification via the multiple ones of the client computing platforms may occur immediately upon detection of the first token, or at a later time. The first modification may include one or more of (1) a modification to a first character within the virtual space, (2) a modification to a first virtual item within the virtual space, (3) a modification to one or more aspects of the virtual space, and/or other modifications.

A character (e.g., the first character) may be a user-controlled character or a non-user-controlled character. A modification to the character may include a modification to one or 35 more of a behavior of the character, an ability of the character, an appearance of the character, a relationship of the character, and/or other modifications associated with the character. A modification to a virtual item (e.g., the first virtual item) may include a modification to one or more of a function of the virtual item, an effectiveness of the virtual item, an appearance of the virtual item, and/or other modifications associated with the virtual item. A given objective may be a purpose or goal that efforts or actions within the virtual space are intended to attain or accomplish. The environment of the virtual space may be an aggregate of surroundings and conditions of the virtual space. The theme of the virtual space may be a unifying subject associated with the virtual space.

These and other features, and characteristics of the present technology, as well as the methods of operation and functions of the related elements of structure and the combination of parts and economies of manufacture, will become more apparent upon consideration of the following description and the appended claims with reference to the accompanying drawings, all of which form a part of this specification, wherein like reference numerals designate corresponding parts in the various figures. It is to be expressly understood, however, that the drawings are for the purpose of illustration and description only and are not intended as a definition of the limits of the invention. As used in the specification and in the claims, the singular form of "a", "an", and "the" include plural referents unless the context clearly dictates otherwise.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 illustrates a system configured to effectuate modifications within an instance of a virtual space presented via multiple disparate client computing platforms responsive to

detection of a token associated with a single client computing platform, in accordance with one or more implementations.

FIG. 2 illustrates a method for effectuating modifications within an instance of a virtual space presented via multiple disparate client computing platforms responsive to detection of a token associated with a single client computing platform, in accordance with one or more implementations.

DETAILED DESCRIPTION

Exemplary implementations may facilitate effectuating modifications within an instance of a virtual space presented via multiple disparate client computing platforms responsive to detection of a token associated with a single client computing platform. In some implementations, a physical accessory may depict a character in the virtual space. By way of non-limiting example, the physical accessory may include a toy figurine resembling the character. A detectable token (i.e., a physical object) may be removably attached to the physical accessory. According to some implementations, responsive to the physical accessory being detected along with the removably attached token, a modification within the virtual space may be effectuated. In some implementations, detection of the token alone may effectuate such a modification.

FIG. 1 illustrates a system configured to effectuate modi- 25 fications within an instance of a virtual space presented via multiple disparate client computing platforms responsive to detection of a token associated with a single client computing platform, in accordance with one or more implementations. The system 100 may include one or more virtual space 30 platforms 102. In some implementations, virtual space platform(s) 102 may be one or more servers (e.g., server(s) 104) configured to communicate with one or more client computing platform (e.g., client computing platforms 106) according to a client/server architecture. According to some implemen- 35 tations, virtual space platform(s) 102 may be one or more client computing platforms (e.g., client computing platforms 106). In some implementations, virtual space platform(s) 102 may communicate with other virtual space platform(s) 102 according to a peer-to-peer architecture. The users may 40 access system 100 and/or the virtual space via the virtual space platform(s) 102 and/or client computing platform(s)

A token 108 may be configured to be detected to effectuate modifications within an instance of the virtual space, in accor- 45 dance with one or more implementations. The token 108 may be a standalone physical object. Examples of token 108 may include one or more of a toy figurine, a toy accessory, a coin, a disk, a card, and/or other form factors suitable to be tokens as described herein. The token 108 may be configured to 50 depict a given character and/or a given virtual item. By way of non-limiting example, the given character may be Captain Jack Sparrow, the fictional character and protagonist of the Pirates of the Caribbean film series. The given virtual item may be an accessory associated with Captain Jack Sparrow, 55 such as a sword. The token 108 may be a toy figurine embodying the appearance of Captain Jack Sparrow and/or the sword. The token 108 may include an image of Captain Jack Sparrow and/or the sword. The token 108 may include an emblem associated with Captain Jack Sparrow and/or the sword.

The token 108 may be configured to be detectable by a token reader 110. In some implementations, detection of token 108 may be based on a shape of a portion of token 108 and/or an overall shape of token 108. In some implementations, token 108 may be detectable based on a signal conveying information associated with token 108. The information associated with token 108 conveyed by the signal may be

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devoid of virtual space content (described further herein). Detection of token 108 may be facilitated by electronics embedded within or otherwise included in token 108. For example, token 108 may include a radio-frequency identification (RFID) chip configured to emit radio-frequency electromagnetic fields responsive to token 108 being disposed in a proximity of token reader 110. As another example, token 108 may include an integrated circuit configured to transfer information associated with token 108 responsive to token 108 being placed in contact with a portion of token reader 110

According to some implementations, virtual space content associated with one or more of a character, a virtual item, the virtual space, a modification to the character, a modification to the virtual space, and/or other virtual space content may be stored at a location other than token 108. That is, token 108 may not store virtual space content. The token 108 may store information used to detect token 108. In some implementations, token 108 may not store information other than what may be used to detect the given token. Virtual space content may include information used to affect views and/or gameplay of the virtual space. Such virtual space content may be stored by virtual space platform(s) and/or by one or more other components of the system described in connection with FIG. 1.

The physical accessory 112 may be a standalone physical object. Examples of physical accessory 112 may include one or more of a toy figurine, a toy accessory, a coin, a card, and/or other form factors suitable to be a physical accessory as described herein. The physical accessory 112 may be configured to depict one or both of a character and/or a virtual item. By way of non-limiting example, a given character may be Buzz Lightyear, the fictional character and deuteragonist of the Toy Story film series. A given virtual item may be the handheld "Blaster" used by Buzz Lightyear in the Toy Story film series.

In some implementations, physical accessory 112 may itself be a token that is the same as or similar to token 108. For example, physical accessory 112 may be detectable.

The token 108 may be configured to be removably attached to physical accessory 112. In some implementations, token 108 must be attached to physical accessory 112 for the modification to one or more of a character, a virtual item, and/or one or more aspects of the virtual space to be effectuated. By way of non-limiting illustration, token 108 may be removably attached to a bottom surface of physical accessory 112. Responsive to token 108 and physical accessory 112 being detected together, a modification may be made to one or both of (1) the character depicted by physical accessory 112 or (2) a virtual item associated with the character depicted by physical accessory 112. As another example, where physical accessory 112 depicts Captain Jack Sparrow and token 108 depicts the Blaster of Buzz Lightyear, detection of token 108 and physical accessory 112 may effectuate a modification of Captain Jack Sparrow's sword such that the sword takes on some characteristics of the Blaster (e.g., shooting laser beams).

The token reader 110 may be configured to detect token 108. The token reader 110 may be configured to provide signals associated with individual tokens (e.g., token 108). For example, a given signal associated with a given token may convey information associated with the given token. In some implementations, token reader 110 may be configured to provide a first signal responsive to one or more of (1) a first token abutting a portion of the token reader, (2) the first token being disposed in a proximity of the token reader, and/or other actions configured to facilitate detection of the first token. In

some implementations, token 108 may be configured to be removably attached to a surface of token reader 110.

According to some implementations, token reader 110 may be a peripheral device configured to be communicatively coupled with one or more components of the system 5 described in connection with FIG. 1. In some implementations, token reader 110 may be integrated so as to form a singular device with a component of the system described in connection with FIG. 1.

The virtual space platform(s) 102 may be configured to 10 execute one or more computer program modules. The computer program modules may include one or more of a user module 114, a space module 116, a token detection module 118, a virtual space modification module 120, and/or other modules.

The user module 114 may be configured to access and/or manage one or more user profiles and/or user information associated with users of system 100. The one or more user profiles and/or user information may include information stored by virtual space platform(s) 102 and/or other storage 20 locations. The user profiles may include, for example, information identifying users (e.g., a username or handle, a number, an identifier, and/or other identifying information) within the virtual space, security login information (e.g., a login code or password), virtual space account information, sub- 25 scription information, virtual currency account information (e.g., related to currency held in credit for a user), relationship information (e.g., information related to relationships between users in the virtual space), virtual space usage information, demographic information associated with users, 30 interaction history among users in the virtual space, information stated by users, purchase information of users, browsing history of users, a client computing platform identification associated with a user, a phone number associated with a user, and/or other information related to users.

The space module 116 may be configured to implement the instance of the virtual space executed by the computer modules to determine views of the virtual space. In some implementations, the views may then be communicated (e.g., via streaming, via object/position data, and/or other information) 40 from server(s) 104 to client computing platform(s) 106 for presentation to users. The view determined and presented to a given user may correspond to a user character being controlled by the given user. The view determined and presented to the given user may correspond to a location in the virtual 45 space (e.g., the location from which the view is taken, the location the view depicts, and/or other locations), a zoom ratio, a dimensionality of objects, a point-of-view, and/or view parameters. One or more of the view parameters may be selectable by the user.

The instance of the virtual space may comprise a simulated space that is accessible by users via virtual space platform(s) 102 and/or clients (e.g., client computing platform(s) 106) that present the views of the virtual space to a user. The simulated space may have a topography, express ongoing 55 real-time interaction by one or more users, and/or include one or more objects positioned within the topography that are capable of locomotion within the topography. In some instances, the topography may be a 2-dimensional topography. In other instances, the topography may be a 3-dimensional topography. The topography may include dimensions of the space, and/or surface features of a surface or objects that are "native" to the space. In some instances, the topography may describe a surface (e.g., a ground surface) that runs through at least a substantial portion of the space. In some 65 instances, the topography may describe a volume with one or more bodies positioned therein (e.g., a simulation of gravity6

deprived space with one or more celestial bodies positioned therein). The instance executed by the computer modules may be synchronous, asynchronous, and/or semi-synchronous.

The above description of the manner in which views of the virtual space are determined by space module 116 is not intended to be limiting. The space module 116 may be configured to express the virtual space in a more limited, or richer, manner. For example, views determined for the virtual space may be selected from a limited set of graphics depicting an event in a given place within the virtual space. The views may include additional content (e.g., text, audio, pre-stored video content, and/or other content) that describes particulars of the current state of the place, beyond the relatively generic graphics. For example, a view may include a generic battle graphic with a textual description of the opponents to be confronted. Other expressions of individual places within the virtual space are contemplated.

Within the instance(s) of the virtual space executed by space module 116, users may control characters, objects, simulated physical phenomena (e.g., wind, rain, earthquakes, and/or other phenomena), and/or other elements within the virtual space to interact with the virtual space and/or each other. The user characters may include avatars. As used herein, the term "user character" may refer to an object (or group of objects) present in the virtual space that represents an individual user. The user character may be controlled by the user with which it is associated. The user controlled element(s) may move through and interact with the virtual space (e.g., non-user characters in the virtual space, other objects in the virtual space). The user controlled elements controlled by and/or associated with a given user may be created and/or customized by the given user. The user may have an "inventory" of virtual goods and/or currency that the user can use (e.g., by manipulation of a user character or other user controlled element, and/or other items) within the virtual space.

The users may participate in the instance of the virtual space by controlling one or more of the available user controlled elements in the virtual space. Control may be exercised through control inputs and/or commands input by the users through virtual space platform(s) 102 and/or clients (e.g., client computing platform(s) 106). The users may interact with each other through communications exchanged within the virtual space. Such communications may include one or more of textual chat, instant messages, private messages, voice communications, and/or other communications. Communications may be received and entered by the users via their respective virtual space platform(s) 102 and/or client(s) (e.g., client computing platform(s) 106). Communications may be routed to and from the appropriate users through virtual space platform(s) 102 (e.g., through space module 116).

The token detection module 118 may be configured to detect tokens (e.g., token 108) based on signals received from token readers (e.g., token reader 110) associated with individual ones of client computing platforms 106. For example, a first token may be associated with a first client computing platform, whereas a second token may be associated with a second client computing platform. Detecting token 108 may include receiving a signal conveying information associated with token 108. Such information may be utilized to identify token 108, a character associated with token 108, a virtual item associated with token 108, and/or other information associated with token 108.

The virtual space modification module 120 may be configured to effectuate a first modification within the instance of the virtual space responsive to detection of the first token

(e.g., token 108). The first modification may be observable via multiple ones of client computing platforms 106. The observability of the first modification via the multiple ones of client computing platforms 106 may occur immediately upon detection of the first token, or at a later time. The first modification may include one or more of (1) a modification to a first character within the virtual space, (2) a modification to a first virtual item within the virtual space, (3) a modification to one or more aspects of the virtual space, and/or other modifications.

A character (e.g., the first character) may be a user-controlled character or a non-user-controlled character. A modification to the character may include a modification to one or more of a behavior of the character, an ability of the character, an appearance of the character, a relationship of the character, 15 and/or other modifications associated with the character. By way of non-limiting example, a modification to a behavior of the character may include a modification to how the character acts when idle and/or other behavior modifications. A modification to an ability of the character may include a modifi- 20 cation to a speed at which the character can run and/or other ability modifications. A modification to an ability of the character may include addition of abilities (e.g., flying). A modification to an appearance of the character may include a change to apparel worn by the character and/or other appear- 25 ance modifications. A modification to a relationship of the character may include becoming friends with another character and/or other relationship modifications. In some implementations, a character modification may include introducing a new character to the instance of the virtual space.

A modification to a virtual item (e.g., the first virtual item) may include a modification to one or more of a function of the virtual item, an effectiveness of the virtual item, an appearance of the virtual item, and/or other modifications associated with the virtual item. By way of non-limiting example, a 35 modification to a function of the virtual item may include extending a range of shots fired by the virtual item and/or other function modifications. A modification to a function of the virtual item may include addition of functions (e.g., shooting laser beams in addition to normal shots). A modification 40 to an effectiveness of the virtual item may include decreasing the number of shots from the virtual item required to defeat a foe and/or other effectiveness modifications. A modification to the appearance of the virtual item may include a change to the color or size of the virtual item and/or other appearance 45 modifications.

Aspects of the virtual space may include one or more of objectives associated with the virtual space, an environment of the virtual space, a theme of the virtual space, and/or other aspects of the virtual space. A given objective may be a 50 purpose or goal that efforts or actions within the virtual space are intended to attain or accomplish. By way of non-limiting example, a modification to an objective may include a modification to a set of actions that must be performed by a user character in order to advance to a next level of gameplay in the 55 configured to execute computer program modules. The comvirtual space.

The environment of the virtual space may be an aggregate of surroundings and conditions of the virtual space. By way on non-limiting example, a modification to the surroundings of the virtual space may include a modification to one or more 60 of the appearance of the virtual space, a color scheme of the virtual space, a sound and/or soundtrack associated with the virtual space, and/or other aspects of the surroundings of the virtual space. A modification to the conditions of the virtual space may include a modification to one or more of laws of 65 nature (e.g., gravity) of the virtual space, weather depicted in the virtual space, and/or other aspects of the conditions of the

virtual space. Modifying the environment may include modifying one or both of the surroundings or the conditions of the

The theme of the virtual space may be a unifying subject associated with the virtual space. A given character may be one of a plurality of characters associated with a given theme. By way of non-limiting example, where the character is Captain Jack Sparrow, the theme may relate to Pirates of the Caribbean. A modification to the theme of the virtual space may include a modification to one or more attributes of the theme of the virtual space. Examples of such attributes may include one or more of objects, designs, symbols, color schemes, music, and/or other attributes that identify the theme of the virtual space.

According to some implementations, detection of a token (e.g., token 108) associated with the first client computing platform in combination with detection of one or more other tokens associated with the first client computing platform may effectuate another modification within the instance of the virtual space. In some implementations, detection of both a first token associated with a first character and a second token associated with a second theme may effectuate a modification to the first character based on the second theme. By way of non-limiting example, where the first character is Captain Jack Sparrow and the second theme relates to the Toy Story film series, the first character may be modified such that Captain Jack Sparrow sings the theme song of Toy Story.

In some implementations, client computing platforms 106 may include a second client computing platform. The tokens may include a second token associated with the second client computing platform. The second token may be similar to token 108. The second token may be detectable based on a second signal conveying information associated with the second token. The information associated with the second token conveyed by the second signal may be devoid of virtual space content. The virtual space modification module 120 may be configured to effectuate a second modification within the instance of the virtual space responsive to detection of the second token. The second modification may be observable via multiple ones of client computing platforms 106 including the first client computing platform and the second computing

In some implementations, two or more components of system 100 (e.g., virtual space platform(s) 102, server(s) 104, client computing platform(s) 106, token reader 110, and/or external resources 122) may be operatively linked via one or more electronic communication links. For example, such electronic communication links may be established, at least in part, via a network such as the Internet and/or other networks. It will be appreciated that this is not intended to be limiting, and that the scope of this disclosure includes implementations in which two or more components of system 100 may be operatively linked via some other communication media.

A given server 104 may include one or more processors puter program modules may be configured to enable an expert or user associated with the given server 104 to interface with system 100 and/or external resources 122, and/or provide other functionality attributed herein to server(s) 104.

A given client computing platform 106 may include one or more processors configured to execute computer program modules. The computer program modules may be configured to enable an expert or user associated with the given client computing platform 106 to interface with system 100 and/or external resources 122, and/or provide other functionality attributed herein to client computing platform(s) 106. By way of non-limiting example, the given client computing platform

106 may include one or more of a desktop computer, a laptop computer, a handheld computer, a NetBook, a Smartphone, a gaming console, and/or other computing platforms.

The external resources 122 may include sources of information, hosts and/or providers of virtual environments outside of system 100, external entities participating with system 100, and/or other resources. In some implementations, some or all of the functionality attributed herein to external resources 122 may be provided by resources included in system 100.

The virtual space platform(s) 102 may include electronic storage 124, one or more processors 126, and/or other components. The virtual space platform(s) 102 may include communication lines, or ports to enable the exchange of information with a network and/or other computing platforms. Is Illustration of virtual space platform(s) 102 in FIG. 1 is not intended to be limiting. The virtual space platform(s) 102 may include a plurality of hardware, software, and/or firmware components operating together to provide the functionality attributed herein to virtual space platform(s) 102. For example, virtual space platform(s) 102 may be implemented by a cloud of computing platforms operating together as virtual space platform(s) 102.

Electronic storage 124 may comprise electronic storage media that electronically stores information. The electronic 25 storage media of electronic storage 124 may include one or both of system storage that is provided integrally (i.e., substantially non-removable) with virtual space platform(s) 102 and/or removable storage that is removably connectable to virtual space platform(s) 102 via, for example, a port (e.g., a 30 USB port, a firewire port, etc.) or a drive (e.g., a disk drive, etc.). Electronic storage 124 may include one or more of optically readable storage media (e.g., optical disks, etc.), magnetically readable storage media (e.g., magnetic tape, magnetic hard drive, floppy drive, etc.), electrical charge- 35 based storage media (e.g., EEPROM, RAM, etc.), solid-state storage media (e.g., flash drive, etc.), and/or other electronically readable storage media. The electronic storage 124 may include one or more virtual storage resources (e.g., cloud storage, a virtual private network, and/or other virtual storage 40 resources). Electronic storage 124 may store software algorithms, information determined by processor(s) 126, information received from one or more other components of system 100, and/or other information that enables virtual space platform(s) 102 to function as described herein.

The processor(s) 126 may be configured to provide information processing capabilities in virtual space platform(s) 102. As such, processor(s) 126 may include one or more of a digital processor, an analog processor, a digital circuit designed to process information, an analog circuit designed to 50 process information, a state machine, and/or other mechanisms for electronically processing information. Although processor(s) 126 is shown in FIG. 1 as a single entity, this is for illustrative purposes only. In some implementations, processor(s) 126 may include a plurality of processing units. 55 These processing units may be physically located within the same device, or processor(s) 126 may represent processing functionality of a plurality of devices operating in coordination. The processor(s) 126 may be configured to execute modules 114, 116, 118, 120, and/or other modules. The pro- 60 cessor(s) 126 may be configured to execute modules 114, 116, 118, 120, and/or other modules by software; hardware; firmware; some combination of software, hardware, and/or firmware; and/or other mechanisms for configuring processing capabilities on processor(s) 126.

It should be appreciated that although modules 114, 116, 118, and 120 are illustrated in FIG. 1 as being co-located

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within a single processing unit, in implementations in which processor(s) 126 includes multiple processing units, one or more of modules 114, 116, 118, and/or 120 may be located remotely from the other modules. The description of the functionality provided by the different modules 114, 116, 118, and/or 120 described herein is for illustrative purposes, and is not intended to be limiting, as any of modules 114, 116, 118, and/or 120 may provide more or less functionality than is described. For example, one or more of modules 114, 116, 118, and/or 120 may be eliminated, and some or all of its functionality may be provided by other ones of modules 114, 116, 118, and/or 120. As another example, processor(s) 126 may be configured to execute one or more additional modules that may perform some or all of the functionality attributed below to one of modules 114, 116, 118, and/or 120.

FIG. 2 illustrates a method 200 for effectuating modifications within an instance of a virtual space presented via multiple disparate client computing platforms responsive to detection of a token associated with a single client computing platform, in accordance with one or more implementations. The operations of method 200 presented below are intended to be illustrative. In some embodiments, method 200 may be accomplished with one or more additional operations not described, and/or without one or more of the operations discussed. Additionally, the order in which the operations of method 200 are respectively illustrated in FIG. 2 and described below is not intended to be limiting.

In some embodiments, method 200 may be implemented in one or more processing devices (e.g., a digital processor, an analog processor, a digital circuit designed to process information, an analog circuit designed to process information, a state machine, and/or other mechanisms for electronically processing information). The one or more processing devices may include one or more devices executing some or all of the operations of method 200 in response to instructions stored electronically on an electronic storage medium. The one or more processing devices may include one or more devices configured through hardware, firmware, and/or software to be specifically designed for execution of one or more of the operations of method 200.

At an operation 202, an instance of a virtual space may be implemented to determine views of the virtual space. The instance of the virtual space may be presented via a plurality of separate and distinct client computing platforms. The plurality of client computing platforms may include a first client computing platform. Operation 202 may be performed by one or more processors configured to execute a space module that is the same as or similar to space module 116, in accordance with one or more implementations.

At an operation 204, one or more tokens may be detected based on signals received from token readers associated with individual ones of the plurality of client computing platforms. A given token may be a standalone physical object. The tokens may include a first token associated with the first client computing platform. The first token may be detectable based on a first signal conveying information associated with the first token. The information associated with the first token conveyed by the first signal may be devoid of virtual space content. Operation 204 may be performed by one or more processors configured to execute a token detection module that is the same as or similar to token detection module 118, in accordance with one or more implementations.

At an operation **206**, a modification may be effectuated within the instance of the virtual space responsive to detection of the first token. The first modification may be observable via multiple ones of the plurality client computing platforms. Operation **206** may be performed by one or more processors

configured to execute a virtual space modification module that is the same as or similar to virtual space modification module 120, in accordance with one or more implementations

Although the present technology has been described in 5 detail for the purpose of illustration based on what is currently considered to be the most practical and preferred implementations, it is to be understood that such detail is solely for that purpose and that the technology is not limited to the disclosed implementations, but, on the contrary, is intended to cover 10 modifications and equivalent arrangements that are within the spirit and scope of the appended claims. For example, it is to be understood that the present technology contemplates that, to the extent possible, one or more features of any implementation can be combined with one or more features of any other 15 implementation.

What is claimed is:

1. A system configured to effectuate modifications within an instance of a virtual space presented via multiple disparate client computing platforms responsive to detection of a token 20 associated with a single client computing platform, the system comprising:

one or more hardware processors configured by computer readable instructions to:

implement the instance of the virtual space to determine 25 views of the virtual space, the instance of the virtual space being presented via a plurality of separate and distinct client computing platforms, the plurality of client computing platforms including a first client computing platform;

detect tokens based on signals received from token readers associated with individual ones of the plurality of client computing platforms, a given token being a standalone physical object, the tokens including a first token associated with the first client computing platform, the first token being detectable based on a first signal conveying information associated with the first token, the information associated with the first token conveyed by the first signal being devoid of virtual space content; and

effectuate a first modification within the instance of the 40 virtual space responsive to detection of the first token, the first modification being observable via multiple ones of the plurality client computing platforms, the first modification including a modification to a first character within the virtual space;

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wherein the modification to the first character includes a modification to one or more of a behavior of the first character, an ability of the first character, an appearance of the first character, or a relationship of the first character.

2. A system configured to effectuate modifications within an instance of a virtual space presented via multiple disparate client computing platforms responsive to detection of a token associated with a single client computing platform, the system comprising:

one or more hardware processors configured by computer readable instructions to:

implement the instance of the virtual space to determine views of the virtual space, the instance of the virtual space being presented via a plurality of separate and 60 distinct client computing platforms, the plurality of client computing platforms including a first client computing platform;

detect tokens based on signals received from token readers associated with individual ones of the plurality of client 65 computing platforms, a given token being a standalone physical object, the tokens including a first token asso12

ciated with the first client computing platform, the first token being detectable based on a first signal conveying information associated with the first token, the information associated with the first token conveyed by the first signal being devoid of virtual space content; and

effectuate a first modification within the instance of the virtual space responsive to detection of the first token, the first modification being observable via multiple ones of the plurality client computing platforms, the first modification including a modification to a modification to a first virtual item within the virtual space;

wherein the modification to the first virtual item includes a modification to one or more of a function of the first virtual item, an effectiveness of the first virtual item, or an appearance of the first virtual item.

3. The system of claim 1, wherein the first token is configured to be removably attached to a first physical accessory, and wherein the first token must be attached to the first physical accessory for the modification within the instance of the virtual space to be effectuated.

4. The system of claim **1**, wherein detection of the first token in combination with detection of one or more other tokens associated with the first client computing platform effectuates another modification within the instance of the virtual space.

5. The system of claim 1, wherein:

the plurality of client computing platforms further include a second client computing platform;

the tokens further include a second token associated with the second client computing platform, the second token being detectable based on a second signal conveying information associated with the second token, the information associated with the second token conveyed by the second signal being devoid of virtual space content; and

the one or more hardware processors are further configured by computer readable instructions to effectuate a second modification within the instance of the virtual space responsive to detection of the second token, the second modification being observable via multiple ones of the plurality client computing platforms including the first client computing platform and the second computing platform.

6. The system of claim 5, wherein the first computing platform is a stationary computing platform and the second computing platform is a mobile computing platform.

7. A system configured to effectuate modifications within an instance of a virtual space presented via multiple disparate client computing platforms responsive to detection of a token associated with a single client computing platform, the system comprising:

one or more hardware processors configured by computer readable instructions to:

implement the instance of the virtual space to determine views of the virtual space, the instance of the virtual space being presented via a plurality of separate and distinct client computing platforms, the plurality of client computing platforms including a first client computing platform;

detect tokens based on signals received from token readers associated with individual ones of the plurality of client computing platforms, a given token being a standalone physical object, the tokens including a first token associated with the first client computing platform, the first token being detectable based on a first signal conveying information associated with the first token, the informa-

tion associated with the first token conveyed by the first signal being devoid of virtual space content; and

effectuate a first modification within the instance of the virtual space responsive to detection of the first token. the first modification being observable via multiple ones 5 of the plurality client computing platforms, the first modification including a modification to an objective associated with the virtual space, the objective being a purpose or goal that efforts or actions within the virtual space are intended to attain or accomplish.

8. A system configured to effectuate modifications within an instance of a virtual space presented via multiple disparate client computing platforms responsive to detection of a token associated with a single client computing platform, the system comprising:

one or more hardware processors configured by computer readable instructions to:

implement the instance of the virtual space to determine views of the virtual space, the instance of the virtual 20 space being presented via a plurality of separate and distinct client computing platforms, the plurality of client computing platforms including a first client computing platform;

detect tokens based on signals received from token readers 25 associated with individual ones of the plurality of client computing platforms, a given token being a standalone physical object, the tokens including a first token associated with the first client computing platform, the first token being detectable based on a first signal conveying 30 information associated with the first token, the information associated with the first token conveyed by the first signal being devoid of virtual space content; and

effectuate a first modification within the instance of the virtual space responsive to detection of the first token, 35 the first modification being observable via multiple ones of the plurality client computing platforms, the first modification including a modification to a theme of the virtual space, the theme of the virtual space being a unifying subject associated with the virtual space.

9. A computer-implemented method for effectuating modifications within an instance of a virtual space presented via multiple disparate client computing platforms responsive to detection of a token associated with a single client computing platform, the method being performed by one or more hard- 45 figured to be removably attached to a first physical accessory, ware processors configured by computer readable instructions, the method comprising:

implementing, at one or more hardware processors, the instance of the virtual space to determine views of the virtual space, the instance of the virtual space being 50 presented via a plurality of separate and distinct client computing platforms, the plurality of client computing platforms including a first client computing platform;

detecting, at one or more hardware processors, tokens based on signals received from token readers associated 55 with individual ones of the plurality of client computing platforms, a given token being a standalone physical object, the tokens including a first token associated with the first client computing platform, the first token being detectable based on a first signal conveying information 60 associated with the first token, the information associated with the first token conveyed by the first signal being devoid of virtual space content; and

effectuating, at one or more hardware processors, a first modification within the instance of the virtual space 65 responsive to detection of the first token, the first modification being observable via multiple ones of the plu14

rality client computing platforms, the first modification including a modification to a first character within the virtual space;

wherein the modification to the first character includes a modification to one or more of a behavior of the first character, an ability of the first character, an appearance of the first character, or a relationship of the first char-

10. A computer-implemented method for effectuating modifications within an instance of a virtual space presented via multiple disparate client computing platforms responsive to detection of a token associated with a single client computing platform, the method being performed by one or more hardware processors configured by computer readable instructions, the method comprising:

implementing, at one or more hardware processors, the instance of the virtual space to determine views of the virtual space, the instance of the virtual space being presented via a plurality of separate and distinct client computing platforms, the plurality of client computing platforms including a first client computing platform;

detecting, at one or more hardware processors, tokens based on signals received from token readers associated with individual ones of the plurality of client computing platforms, a given token being a standalone physical object, the tokens including a first token associated with the first client computing platform, the first token being detectable based on a first signal conveying information associated with the first token, the information associated with the first token conveyed by the first signal being devoid of virtual space content; and

effectuating, at one or more hardware processors, a first modification within the instance of the virtual space responsive to detection of the first token, the first modification being observable via multiple ones of the plurality client computing platforms, the first modification including a modification to a first virtual item within the virtual space;

wherein the modification to the first virtual item includes a modification to one or more of a function of the first virtual item, an effectiveness of the first virtual item, or an appearance of the first virtual item.

11. The method of claim 9, wherein the first token is conand wherein the first token must be attached to the first physical accessory for the modification within the instance of the virtual space to be effectuated.

12. The method of claim 9, further comprising effectuating another modification within the instance of the virtual space responsive to detection of the first token in combination with detection of one or more other tokens associated with the first client computing platform.

13. The method of claim 9, wherein:

the plurality of client computing platforms further include a second client computing platform;

the tokens further include a second token associated with the second client computing platform, the second token being detectable based on a second signal conveying information associated with the second token, the information associated with the second token conveyed by the second signal being devoid of virtual space content;

the method further comprises effectuating a second modification within the instance of the virtual space responsive to detection of the second token, the second modification being observable via multiple ones of the

plurality client computing platforms including the first client computing platform and the second computing platform.

14. The method of claim 13, wherein the first computing platform is a stationary computing platform and the second computing platform is a mobile computing platform.

15. A computer-implemented method for effectuating modifications within an instance of a virtual space presented via multiple disparate client computing platforms responsive to detection of a token associated with a single client computing platform, the method being performed by one or more hardware processors configured by computer readable instructions, the method comprising:

implementing, at one or more hardware processors, the instance of the virtual space to determine views of the virtual space, the instance of the virtual space being presented via a plurality of separate and distinct client computing platforms, the plurality of client computing platform;

detecting, at one or more hardware processors, tokens based on signals received from token readers associated with individual ones of the plurality of client computing platforms, a given token being a standalone physical object, the tokens including a first token associated with the first client computing platform, the first token being detectable based on a first signal conveying information associated with the first token conveyed by the first signal being devoid of virtual space content; and

effectuating, at one or more hardware processors, a first modification within the instance of the virtual space responsive to detection of the first token, the first modification being observable via multiple ones of the plurality client computing platforms, the first modification including a modification to an objective associated with

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the virtual space, the objective being a purpose or goal that efforts or actions within the virtual space are intended to attain or accomplish.

16. A computer-implemented method for effectuating modifications within an instance of a virtual space presented via multiple disparate client computing platforms responsive to detection of a token associated with a single client computing platform, the method being performed by one or more hardware processors configured by computer readable instructions, the method comprising:

implementing, at one or more hardware processors, the instance of the virtual space to determine views of the virtual space, the instance of the virtual space being presented via a plurality of separate and distinct client computing platforms, the plurality of client computing platforms including a first client computing platform;

detecting, at one or more hardware processors, tokens based on signals received from token readers associated with individual ones of the plurality of client computing platforms, a given token being a standalone physical object, the tokens including a first token associated with the first client computing platform, the first token being detectable based on a first signal conveying information associated with the first token, the information associated with the first token conveyed by the first signal being devoid of virtual space content; and

effectuating, at one or more hardware processors, a first modification within the instance of the virtual space responsive to detection of the first token, the first modification being observable via multiple ones of the plurality client computing platforms, the first modification including a modification to a theme of the virtual space, the theme of the virtual space being a unifying subject associated with the virtual space.

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